

ABSTRACT

The present invention relates to novel methods for identifying antiviral agents which selectively interfere with viral proteins that override the interferon(IFN)-induced cellular defense mechanisms against viral infection. In particular, the present invention relates to screening assays that identify agents which selectively inhibit the interaction between viral proteins containing an interferon sensitivity determining region (ISDR) and IFN-induced PKR protein kinase. The present invention more particularly relates to screening assays that identify agents which selectively inhibit the interaction between hepatitis C virus (HCV) nonstructural 5A protein (NS5A), which contains an ISDR, and IFN-induced PKR protein kinase. The interaction between the viral ISDR and IFN-induced PKR protein kinase results in the override of IFN-induced cellular defense mechanisms to combat viral infection. Therefore the agents identified using the assays of the invention may have utility as antiviral agents.

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